

**RESPONSIVENESS SUMMARY TO PUBLIC COMMENTS
ARIZONA PORTLAND CEMENT CO.
SIGNIFICANT PERMIT REVISION #39066**

INTRODUCTION

Arizona Portland Cement Company (APCC) operates the Twin Peaks Rock & Stone aggregate plant, which crushes and screens a portion of stockpiled waste rock from APCC's quarry for sale into the local market. Class I Significant Permit Revision No. 39066 integrates the existing Twin Peaks Rock & Stone plant into the facility's Title V permit, and allows for limited portable crushing and screening equipment to be brought in as well, to respond to variations in market demand. The total quantities of rock processed by the aggregate plant and aggregate produced are limited to 800,000 tons per year.

PUBLIC PARTICIPATION PROCESS

A public notice for the draft permit revision was published in the Arizona Daily Star and the Tucson Citizen on June 23, 2006, and June 30, 2006. During the public notice period, a public hearing was requested, and a second public notice was published in the same two newspapers on August 11, 2006, and August 18, 2006. The public hearing was held at the Rillito Recreation Center on Tuesday, September 12, 2006, at 6:00 PM. This summary represents the Department's responses to the issues raised during the public comment period.

Concerns were expressed that the revision should have been processed as a modification for NSR/PSD purposes, including BACT requirements for NO_x and SO₂, and LAER requirements for PM and PM₁₀

Since this is existing equipment, this significant permit revision will not result in increased emissions. The additional capacity of the requested portable equipment will not result in PM or PM₁₀ emissions above the significance threshold. Even if this were new equipment, the emissions increase is still below the significance threshold, so NSR/PSD review is not applicable.

Concerns were expressed that the permit revision is part of a larger debottlenecking project on the part of the applicant in order to increase cement production

The Twin Peaks Rock & Stone equipment crushes and screens overburden for sale in the local market. APCC purchased this equipment from Calmat in May of 1998. The equipment was previously operated by Calmat Co. at the same location (Calmat previously owned APCC, and after selling off the cement plant, they leased a portion of the APCC quarry area for this equipment). The equipment was included in Air Quality Permit No. M191365P1-99 through Permit Revision No. 1000865, issued February 16, 1999. APCC inadvertently left this equipment out of its Title V application, and consequently, it was not included in the Title V renewal permit issued October 7, 2003. APCC does not utilize this equipment in support of the cement-making process, therefore, it cannot be part of a debottlenecking effort to increase cement production.

Concerns were expressed that the facility has made various physical changes and changes in the method of operation that should have been subject to the permitting process

Although these changes are not directly related to this significant permit revision, the Department still contacted APCC for information regarding the referenced changes. Most of the changes were replacements of worn and obsolete equipment. For example, the fan drive replacement on Kiln 1 was done because the fan motors dated from the 1940s and 1950s, and the controls and switches were failing,

and replacement parts were becoming difficult to find. Also, closing the disconnects for the starters required electricians to be exposed to an open 2,300-V source and use a hot stick to push in 2,300-V fuses. Worker safety was improved by this replacement. The only change that was not a replacement of obsolete equipment was the water spray system installed in the downcomer section of Kiln 4, which was done to reduce the temperature of the inlet air into the baghouse and to increase bag life. Lower temperatures and longer bag life decrease emissions from the baghouse. None of the changes increased production capacity or emissions, and appear to have been done to perform appropriate maintenance on old equipment and to address safety issues.

Concerns were expressed that a compliance schedule should have been included in the permit revision

EPA issued a notice of violation to APC asserting that APC provided incorrect emission calculations on a prior permit application and, as a result, failed to obtain the required permit revision for a major modification. EPA is continuing negotiations with the company to address the violations identified in the notice. One case, *New York Public Interest Research Group v. Johnson*, 427 F. 3d 172 (2d Cir. 2005), has held that violations identified in a notice of violation by a state agency must be addressed in a subsequent permit issued by the same agency. In this case, because the notice was issued by EPA and not ADEQ, it would be improper for ADEQ to preempt EPA's efforts to negotiate the resolution by including a compliance schedule in this permit revision. In addition, APCC has submitted a permit application to address issues alleged in the notice.

Concerns were expressed that the monitoring, recordkeeping, and reporting requirements are inadequate to be practically enforceable

The Permittee is required to conduct monthly visual surveys, and Method 9 observations when necessary to show compliance with the opacity limits in the permit revision. The Permittee is also required to keep records of these surveys and observations and to report any excess emissions to ADEQ. This requirement is typical in permits for other aggregate and rock processing facilities that ADEQ has permitted.

Concerns were expressed that the documentation is inadequate to provide proper public review

During the public notice period, the Department made the draft permit revision, the draft TSD, and the permit revision application available for review at the Rillito Recreation Center, the Marana Town Clerk's office, and the ADEQ office in Phoenix. These are the documents that ADEQ relied on when drafting the permit revision.

Concerns were expressed that truck traffic relating to the aggregate plant was not accounted for in the emission calculations

The emissions from truck traffic, as well as all emissions relating to the aggregate plant have historically been included in the facility's Emission Inventory Reports. The truck traffic emissions were included even before APCC purchased the Twin Peaks Rock & Stone facility from Calmat in 1998, and were included in the 1998 "RIMOD III" permit revision application. The EPA Notice of Violation (NOV), dated June 11, 2003, states that APCC used an incorrect value for the number of vehicle miles traveled (VMT) in its 1998 permit revision application. However, the emissions from the Twin Peaks Rock & Stone truck traffic were also included in APCC's 2002 application for Title V permit no. M190310P1-00, and the corrected value for VMT is used in the truck traffic emission calculations.

Concerns were expressed that APCC is processing more overburden because it is mining more limestone and producing more cement in its kilns

The Twin Peaks Rock & Stone facility does not process all of APCC's overburden, so increasing the overburden processed does not necessarily mean the facility is producing more overburden as a result of expansion activities.

Concerns were expressed regarding the 50% emission reduction from the berm surrounding the facility that was used in the emission calculations

The berm surrounding the Twin Peaks Rock & Stone plant acts as a wind screen, which reduces emissions by reducing the wind speed. An average wind speed reduction of 60% was used for material transfers, based on EPA publication, "Control of Open Fugitive Dust Sources" (EPA-450/3-88-008, September 1988). This reduction was included in Equation 3.1-1 from the permit application and resulted in a predicted 70% emission reduction. Also, Exhibit A to Appendix G of the 2003 San Joaquin Valley PM₁₀ Attainment Plan (approved by the EPA on May 26, 2004, FR 04-11667), derived a storage pile wind erosion control efficiency of 75% for wind screens. In order to be conservative, a 50% reduction was applied to the appropriate equipment and storage piles. The wind speed reduction from the berm also reduces the off-site transport of emissions from front-end loader travel on unpaved surfaces. Based on the above emission reductions, a 50% reduction of these emissions was deemed appropriate.

A question was asked regarding the placement of spray bars and nozzles, and how APCC will meet the requirements in A.A.C. R18-2-722.D

A.A.C. R18-2-722.D requires the Permittee to utilize spray bars in accordance with "EPA Control of Air Emissions from Process Operations in the Rock Crushing Industry" (EPA 340/1-79-002), "Wet Suppression System" (pages 15-34, amended as of January 1979). This document provides general guidelines for placement and use of spray bars. The Permittee is required to use spray bars or equivalent control equipment in a manner sufficient to meet the particulate matter and opacity emission limits in the permit revision. Typically, manufacturer specifications and guidance are followed in the installation and operation of pollution controls, including spray systems. In addition, the Department conducts periodic inspections, both announced and unannounced, to verify the proper operation of emission controls.

A question was asked regarding the worst case equipment configuration, and how the potential to emit was calculated.

APCC proposed three operating scenarios, and the worst-case configuration for emissions consists of 1 crusher, 4 screens, 18 conveyor transfer points, and associated material drops and loader unloading. Using APCC's worst case configuration, the PTE is 14 tpy for PM and 4.4 tpy of PM₁₀. As an additional evaluation, and in response to public comments, the Department calculated the potential emissions of all permitted equipment, operating at the maximum permitted capacity. This worst-case equipment configuration consists of 4 crushers, 8 screens, 30 conveyor transfer points, and associated equipment. This configuration includes all existing equipment as well as all potential portable equipment, and results in a controlled PTE of 24.7 tpy of PM and 8.7 tpy of PM₁₀. The Department believes that this is a conservative estimate, as not all equipment would process all 800,000 tpy of material. For instance, if 800,000 tpy were processed by the first screening operation, subsequent screens will process less material (because some of the 800,000 tpy processed by the first screen will not be sent to subsequent screens; the same applies to crushers). In addition, APCC does not anticipate using all of the permitted equipment at full capacity at one time.